What is claimed is:

1.   A shaping control method of performing shaping control so that transfer speed of packets is within a reference speed predetermined in advance,

wherein said shaping control method sets accuracy of transfer time of connections that the packets belongs, in accordance with time interval up to an actual transfer time of the connections in stages, by each of shaping subjects.

2.   The shaping control method according to claim 1, accuracy of the transfer time of the connections is set higher in stages at time nearer to an actual transfer time of the connections.

3.   The shaping control method according to claim 1, wherein accuracy of the transfer time of the connections is set in n (n is an integer equal to or more than 2) stages; wherein the packets of each connection are distributed to any among said n stages in accordance with time interval up to an actual transfer time of the connections; and wherein in the stage that time accuracy is highest, the packets are managed in transfer order, and in the other stages, the packets are managed by being divided into standardized time slots.

4.   The shaping control method according to claim 3, time interval of time slot in a stage of mth order (m is an integer equal to or more than 2) with reference to the actual transfer time of the connections is set shorter than that in a stage of (m+1)th order.

5.   A shaping control apparatus of performing shaping control so that transfer speed of packets is within a reference speed predetermined in advance, comprising:

theoretical transfer time calculating means configured to calculate theoretical transfer time of connections that packets belong;

first holding means configured to hold information relating to the calculated theoretical transfer time by dividing into standardized time slots, while connecting with the connections that the packets belong;

second holding means configured to add information relating to transfer order to a portion of said information held in said first holding means, and hold the added information while connecting with the connections that the packets belong; and

extracting means configured to compare the theoretical transfer time corresponding to said information held in said second holding means with a reference time, and extract the information before said reference time,

wherein the packets belonging to the connections are transferred based on the information extracted by said extracting means.

6.   The shaping control apparatus according to claim 5,

wherein said theoretical transfer time calculating means calculates again the theoretical transfer time of the connection based on the transfer time of the connection that the packet extracted by said extracting means belongs.

7.   The shaping control apparatus according to claim 5,

wherein said first holding means set a plurality of time series different from each other based on categories of the connections including at least one of types of output ports, types of line qualities and types of communication speeds, and divide into these time series the connections that the packets belong.

8.   The shaping control apparatus according to claim 5,

wherein said first holding means set a plurality of time series having standardized time different from each other, and divide into these time series connections that the packets belong.

9.   The shaping control apparatus according to claim 8,

wherein said first holding means set standardized times corresponding to a plurality of said time series, respectively,

based on categories of the connections including at least one of types of output ports, types of line qualities and types of communication speeds.

10. The shaping control apparatus according to claim 7,
    wherein said extracting means assign priorities based on the categories of the connections, and allow a portion of said information held in said first holding means to hold in said second holding means.

11. The shaping control apparatus according to claim 9,
    wherein said extracting means assign priorities based on categories of said connections, and allow a portion of said information held in said first holding means to hold in said second holding means.

12. The shaping control apparatus according to claim 5,
    wherein said second holding means allow a portion of said information held in said first holding means to hold in said second holding means, when time difference between the theoretical transfer time calculated by said theoretical transfer time calculating means and said reference time is within a prescribed time.

13. The shaping control apparatus according to claim 5,
    wherein said second holding means hold a transfer-able identifier showing whether or not to be able to transfer the connections that the packets belong can transfer, said identifier being connected,
    further comprising identifier setting means configured to set said transfer-able identifier corresponding to the connections that the packet having said theoretical transfer time before said reference time belong, to be transfer-able,
    wherein said extracting means extract information relating to the connections that said transfer-able identifier is set to be transfer-able, among the connections held in said second holding means.

14.   The shaping control apparatus according to claim 5,
wherein said extracting means manage said information held
in said first holding means by a LIFO (Last In Fast Out) method.

15.   A shaping control method of performing shaping control so
that transfer speed of packets is within a reference speed
predetermined in advance, comprising:
theoretical transfer time calculating means configured to
calculate a theoretical transfer time of connections that packets
belong;
packet information holding means configured to hold
information relating to the packets by each connection, before
said theoretical transfer time calculating means calculate the
theoretical transfer time of the connection that the packets
belong;
first holding means configured to divide the calculated
information relating to said theoretical transfer time at
standardized time unit, and hold the divided information while
connecting with the connection that the packet belongs;
second holding means configured to add a portion of said
information held in said first holding means to information
relating to transfer order, and hold the added information while
connecting with the connection that the packet belongs; and
extracting means configured to extract a packet of the same
connection as the connection that the packet transferred from
said second holding means belongs, from said packet information
holding means, and transfer the extracted packet to said
theoretical transfer time calculating means.

16.   The shaping control apparatus according to claim 15,
wherein said packet information holding means transfer the
information relating to the packet to said theoretical transfer
time calculating means so that a plurality of packet belonging
to the same connection does not exist in said first and second
holding means.

17.   The shaping control apparatus according to claim 15,
       wherein said first holding means set a plurality of time
series different from each other based on categories of the
connections including at least one of types of output ports, types
of line qualities and types of communication speeds, and divide
into these time series the connections that the packets belong.

18.   The shaping control apparatus according to claim 15,
       wherein said first holding means set a plurality of time
series having standardized time different from each other, and
divide into these time series connections that the packets belong.

19.   The shaping control apparatus according to claim 17,
       wherein said extracting means assign priorities based on
the categories of the connections, and allow a portion of said
information held in said first holding means to hold in said second
holding means.

20.   The shaping control apparatus according to claim 15,
       wherein said extracting means manage said information held
in said first holding means by a LIFO (Last In Fast Out) method.